

CLAIMS

1. A cleaning method utilizing nanobubbles, which comprises cleaning an object with water comprising nanobubbles.
2. The cleaning method utilizing nanobubbles according to claim 1, wherein the water is ultra-pure water and the object is a nanotechnology-associated equipment.
3. The cleaning method utilizing nanobubbles according to claim 1, wherein the object is an industrial equipment.
4. The cleaning method utilizing nanobubbles according to claim 1, wherein the object is an organism.
5. The cleaning method utilizing nanobubbles according to claim 3 or 4, wherein the water comprising nanobubbles is electrolyzed water, ionized alkaline water or acid water.
6. The cleaning method utilizing nanobubbles according to any one of claims 1 to 5, wherein the water comprising nanobubbles further comprises microbubbles.
7. A cleaning apparatus utilizing nanobubbles, which comprises:
a device for generating nanobubbles within water; and
a water supply device for supplying water comprising nanobubbles to an object to be cleaned.

8. The cleaning apparatus utilizing nanobubbles according to claim 7, wherein the water is ultra-pure water and the object is a nanotechnology-associated equipment.

9. The cleaning apparatus utilizing nanobubbles according to claim 7, wherein the object is an industrial equipment.

10. The cleaning apparatus utilizing nanobubbles according to claim 7, wherein the object is an organism.

11. The cleaning apparatus utilizing nanobubbles according to claim 9 or 10, wherein the water comprising nanobubbles is electrolyzed water, ionized alkaline water or acid water.

12. The cleaning apparatus utilizing nanobubbles according to any one of claims 7 to 11, wherein the water comprising nanobubbles further comprises microbubbles.

13. A method for cleaning polluted water by utilizing nanobubbles, which comprises purifying polluted water with nanobubbles and microbubbles.

14. An apparatus for cleaning polluted water by utilizing nanobubbles, which comprises a device for mixing nanobubbles and microbubbles into polluted water.

15. A method for recovering fatigue of an organism by utilizing nanobubbles, which comprises contacting water comprising nanobubbles with the surface of an organism to thereby recover fatigue of the organism.

16. The method for recovering fatigue of an organism by utilizing nanobubbles according to claims 15 or 1, wherein the water comprising nanobubbles further comprises microbubbles.

17. The method for recovering fatigue of an organism by utilizing nanobubbles according to claim 15 or 1, wherein a means for contacting the water with the surface of an organism is a bathtub.

18. An apparatus for recovering fatigue of an organism by utilizing nanobubbles, which comprises:

a device for generating nanobubbles within water; and

a means for contacting water comprising nanobubbles with the surface of an organism.

19. The apparatus for recovering fatigue of an organism by utilizing nanobubbles according to claim 18, wherein the water comprising nanobubbles further comprises microbubbles.

20. The apparatus for recovering fatigue of an organism by utilizing nanobubbles according to claim 18 or 19, wherein the means for contacting water with the surface of an organism is a bathtub.

21. A method for a chemical reaction utilizing nanobubbles, which comprises carrying out a chemical reaction by utilizing a liquid comprising nanobubbles.

22. The method for a chemical reaction utilizing nanobubbles according to claim 21, wherein the chemical reaction is a nonequilibrium chemical reaction.

23. The method for a chemical reaction utilizing nanobubbles according to claim 21, wherein the nanobubbles act as a catalyst in the chemical reaction.

24. An apparatus for a chemical reaction utilizing nanobubbles, which comprises utilizing a liquid comprising nanobubbles for a chemical reaction.

25. The apparatus for a chemical reaction utilizing nanobubbles according to claim 24, wherein the chemical reaction is a nonequilibrium chemical reaction.

26. The apparatus for a chemical reaction utilizing nanobubbles according to claim 24, wherein the nanobubbles act as a catalyst in the chemical reaction.

27. A method for purification and sterilization utilizing nanobubbles, which comprises utilizing water comprising nanobubbles for purifying and sterilizing a plant.

28. The method for purification and sterilization utilizing nanobubbles according to claim 27, wherein the plant is at least one of vegetables, fruits, crops and foods.

29. An apparatus for purification and sterilization utilizing nanobubbles, which comprises a means for contacting water comprising nanobubbles to a plant to thereby purify and sterilize the plant.

30. The apparatus for purification and sterilization utilizing nanobubbles according to claim 29, wherein the plant is at least one of vegetables, fruits, crops and foods.

31. A method for purification and sterilization utilizing nanobubbles, which comprises purifying and sterilizing water within a pool or a water tank by nanobubbles.

32. An apparatus for purification and sterilization utilizing nanobubbles, which comprises a device for mixing nanobubbles into a pool or a water tank.

33. The method for utilizing nanobubbles according to any one of claims 1 to 6, 13, 15 to 17, 21 to 23, 27, 28 and 31, wherein the nanobubbles are generated at least by application of an ultrasonic wave or by electrolysis.